

TIME MASTER IITM

ADVANCED TIME CALCULATOR

Model 9130

User's Guide



**CALCULATED
INDUSTRIES®**

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INTRODUCING TIME MASTER™ II

The *Time Master™ II* calculator has been designed to simplify calculations involving time. Schedulers, athletic trainers, payroll clerks, and other time-counters will find this calculator saves time and money by reducing errors on tedious, time-consuming problems.

- Performs time math operations
- Converts between time formats (Hours, Minutes, Seconds, H:M:S and Decimal format)
- Finds elapsed times
- Has built-in timer/stopwatch with lap/split time functions
- And much more

KEY DEFINITIONS / FUNCTIONS

Standard Calculator Keys

- On/C** **On/Clear** - Turns power on. Pressing once clears the display. Pressing twice clears all temporary values.
- Off** **Off** - Turns all power off, clearing all non-permanent registers.
- Rcl** **Recall** - Used to recall stored values.
- Stor** **Store** - Used to store values.
- Conv** **Convert** - Used to convert between time formats or to access second functions.
- 0** through **9** & **.**
Keys used to enter digits.
- +** **-** **×** **÷** **=**
Basic arithmetic operation keys.
- %** **Percent Key** - Four function (**+** **-** **×** **÷**) % key.
- Conv %** **Delta Percent** - Calculates the % difference between two numbers.

Time Function Keys

- Hr** **Hour** - Enters / converts to decimal hours or Hour: Minute: Second (H:M:S) time formats. Repeated presses will toggle between formats.
- Min** **Minute** - Enters / converts to decimal minutes or Minute: Second (M:S) time formats. Repeated presses will toggle between formats.
- Sec** **Seconds** - Enters / converts to seconds.
- :** **Time Unit Separator** - Used as a separator for entering times. Also switches a value to 24 hour format.
- AM** Designates entry as AM.
- PM** Designates entry as PM.
- Mode** **Auto-Entry mode** - Toggles the entry method as follows:
1) Auto-Entry H:M:S (or H:M)
2) Auto-Entry 24 hour
3) Decimal Entry (default)

Duration Function Keys

Beg **Beginning Point** - Used with the **End** and **Dur** keys to enter or calculate the starting point of a time duration.

End **End Point** - Used with **Beg** and **Dur** keys to enter or calculate the ending point of a time duration.

Conv **① (+1 day) - Plus One Day** - Used before the **End** key to add 24 hours to a time calculation.

Conv **② (+2 day) - Plus Two Day** - Used before the **End** key to add 48 hours to a time calculation.

Conv **③ (+3 day) - Plus Three Day** - Used before the **End** key to add 72 hours to a time calculation.

Dur **Duration** - Used with **Beg** and **End** keys, and the +1 day, +2 day, +3 day functions to enter or calculate the duration of time.

Rate **Rate** - Multiplies a numerical or time value by the rate or temporarily overrides a stored rate. See “Rate Function” page 27.

Stor Rate **Store Rate** - Stores a value as a rate. See “Rate Function” page 27.

Timer Function Keys

- Timer** **Stopwatch / Timer** - Used to access the Stopwatch/Timer Function.
- S/Lap** **Split / Lap Function** - Pauses the timer display, without stopping the timer. If the S/LP preference is set to the “Split” option, the total time elapse from the start of the timer to the moment the **S/Lap** key is pressed will be displayed. If set to the “Lap” option, the elapsed time between presses of **S/Lap** is displayed.

Other Function Keys

- Prefs** **Preference Settings** - Used to access the preference settings. Repeated presses will cycle through the various preferences. Once in the preference setting mode, the **+** and **-** keys are used to change preference options.
- Conv** **÷** **Inverse Function** - Calculates the reciprocal of the displayed value.

Conv **✕** **All Clear** - Clears all values and returns all settings to their default values.

Conv **Rcl** **Clear M+** - Clears the value in the cumulative memory without changing the display.

Conv **+** **Clear Memory** - Clears all values stored in Memory locations 0 through 9. (See “Memory Functions.”)

Conv **—** **Change Sign** -Toggles the sign of the displayed value to positive or negative.

Conv **:** **(12/24 Hr) 24 Hr** - Converts time value to 24 hour (military) time format.

Rcl **=** **Paperless Tape** - Accesses the Paperless Tape mode, which keeps track of your last 20 entries.

OPERATING BASICS

Basic Math

Your calculator uses standard chaining logic, which simply means that the calculations are made in the order entered.

Keystroke	Display
3 + 2 =	5
3 - 2 =	1
3 × 2 =	6
3 ÷ 2 =	1.5

Percent Calculations

The percent **%** key is used for finding a given % of a number or for working add-on, discount or division % calculations.

Keystroke	Display
3 5 5 × 1 5 %	53.25
2 5 0 + 6 5 %	412.5
2 5 - 5 %	23.75
1 0 0 ÷ 5 0 %	200.

Delta %

The $\Delta\%$ function finds the % change between two values. The **=** key must be pressed to complete the calculation.

Keystroke	Display
1 0 Conv % 1 5 =	50.
1 0 0 Conv % 2 5 =	-75.

Cumulative Memory (M+)

Stor **0** (M+) is a cumulative memory in which values of the same convention can be added. It has the following special keystrokes (in addition to those defined above):

Steps	Keystroke
Subtract from M+	Conv Stor 0
Display and Clear M+	Rcl Rcl
Clear M+ without changing the display	Conv Rcl

Using M+

Keystroke	Display
3 5 5 Stor 0	M+ 355.
2 5 5 Stor 0	M+ 255.
Rcl 0	M+ 610.
7 4 5 Conv Stor 0	M+ 745.
Rcl Rcl	-135.

Memory Functions

The *Time Master™ II* can store and recall up to 9 separate non-cumulative Memory values. When a value is stored in Memory, that value does not change until it is revised or the calculator is reset. Values can be stored in any format.

Steps	Keystroke
Store value in Memory	Stor 1 ... 9
Recall value in Memory	Rcl 1 ... 9
Clear one Memory value	0 Stor 1 ... 9
Clear all Memory values	Conv +

Storing Values

Keystroke	Display
3 5 5 Stor 1	M-1 355.
On/C	0.
Rcl 1	M-1 355.
2 5 Stor 1	M-1 25.
On/C	0.
Rcl 1	M-1 25.
0 Stor 1	M-1 0.

Preference Settings

The *Time Master™ II* includes user-selectable preference settings that allow you to customize the calculator for your specific needs or special situations. To access the preference settings, simply press the **Prefs** key.

Repeated presses of this key will scroll through the various options which may be altered by pressing **+** or **-** keys.

Accessing Preference Settings

Keystroke	Display
To set Seconds display:	
Prefs (1 st press of Prefs)	SECS On
+ (plus sign)	SECS Off
To set Rate format:	
Prefs (2 nd press of Prefs)	Rate 0.00
+	Rate 0.
+	Rate 0.0000000
To set Timer format:	
Prefs (3 rd press of Prefs)	TMR 0:00:00.0
+	TMR 0:00:00.00
+	TMR 0:00:00
To set Split / Lap format:	
Prefs (4 th press of Prefs)	S/LP SPLIt
+	S/LP Lap
To set Timer Buzzer:	
Prefs (5 th press of Prefs)	Buzz On
+	Buzz Off
To set Key Beep:	
Prefs (6 th press of Prefs)	Beep Off
+	Beep On

Time Conventions

When you are dealing with time, there are actually two kinds of time values that must be considered:

1. Points in Time: 9:22 AM, 5 PM
2. Time Periods: 37 Minutes, 45 Seconds

The time math rules are as follows:

Addition

Period + Period = Period

$$\mathbf{3\ Hrs.\ +\ 22\ Min.\ =\ 3\ HR\ 22\ MIN}$$

Point + Period = Point

$$\mathbf{9\ AM\ +\ 22\ Min.\ =\ 9:22\ AM}$$

Point + Point = Error

Note: You cannot add two points in time as the result would be meaningless.

Subtraction

Period – Period = Period

$$\mathbf{3\ Hrs.\ -\ 22\ Min.\ =\ 2\ HR\ 38\ MIN}$$

Point – Period = Point

$$\mathbf{9\ AM\ -\ 22\ Min.\ =\ 8:38\ AM}$$

Point – Point = Period

$$\mathbf{9\ AM\ -\ 8:30\ AM\ =\ 30\ MIN}$$

Period – Point = Error

Note: When subtracting one point in time from another, it's best to enter the "later" time first, then subtract the earlier time.

Multiplication

Period x Period	= Error
Point x Period	= Error
Point x Point	= Error
Period x Number	= Period
9 Hrs. X 3	= 27 HR
Point x Number	= Error

Division

Period ÷ Period	= Number
9 Hrs. ÷ 9 Min.	= 60 (9 min. segments)
Period ÷ Number	= Period
9 Hrs. ÷ 60	= 9 MIN
Period ÷ Point	= Error
Point ÷ Period	= Error
Point ÷ Number	= Error
Point ÷ Point	= Error

ENTERING TIME VALUES

The *Time Master™ II* allows the user to enter time in several different ways. By using the **Mode** key to toggle between modes, you can choose to enter time in Decimal format (default), Auto-Entry H:M:S mode, or Auto-Entry 24-hour mode.

Keystroke	Display
Mode	AUTO 0:00:00 HR MIN SEC
Mode	AUTO 00:00:00
Mode	DEC 0.

Decimal Mode

In this mode entries are made for regular or time calculations (when defined with the time unit keys). Time values are entered into the calculator as they are spoken aloud, with the largest time unit entered first.

Keystroke	Display
Add the following time values in Decimal mode:	
3 : 2 : 2 : +	03:22:00
1 7 Min 3 2 Sec	17:32. MIN SEC
=	03:39:32
4 2 3 Min +	423:00 MIN SEC
3 8 . 2 5 Sec	38.25 SEC
=	423:38.25 MIN SEC

* If you are not in Decimal mode, repeatedly press **Mode** until **DEC 0.** is displayed.

If you are entering points in time, you do not have to use the **⌚** key. Under this method you would enter the time as it is read, then press **AM** or **PM**.

Keystroke	Display
Enter 8:05 am in Decimal mode:	
8 0 5 AM	8:05:00 AM

Auto Entry H:M:S Mode

In this mode, the calculator assumes the value is being entered in an Hour:Minute:Second (H:M:S) format. The calculator will scroll the numbers entered from right to left. Entered H:M:S formatted values are limited to less than 100 hours. However, the calculator will display results greater than 100 hours in H:M:S format.

Keystroke	Display
Set to H:M:S mode and add the following values:	
Mode *	AUTO 0:00:00 HR MIN SEC
1 2 0 3 4 5 +	12:03:45 HR MIN SEC
1 1 0 4 1 0	11:04:10 HR MIN SEC
+ 1 4 : : 4 0	14:00:40 HR MIN SEC
+ 6 5 2 2 1 2	65:22:12 HR MIN SEC
=	102:30:47 HR MIN SEC

Return to Decimal mode (default):

Mode Mode *	DEC 0.
---------------------------	--------

* Repeatedly press **Mode**, if needed, until desired mode is displayed.

Auto Entry 24-hour Mode

This mode is used to automatically enter time in a 24-hour format. It will display a 00:00:00 without the **HR MIN SEC** identifiers when the display is cleared. Time in this mode is entered in the same way it is in the H:M:S mode, but the time values will roll back to 00:00:00 after every 24 hours.

Keystroke	Display
-----------	---------

Set to 24-Hour mode and add the following values:

Mode Mode *	AUTO 00:00:00
---------------------------	---------------

1 2 0 3 4 5 +	12:03:45
--	----------

1 1 0 4 1 0	11:04:10
---	----------

+ 1 4 : : 4 0	14:00:40
--	----------

+ 6 5 2 2 1 2	65:22:12
--	----------

=	06:30:47
----------	----------

Return to Decimal mode (default)

Mode *	DEC 0.
---------------	--------

* Repeatedly press **Mode**, if needed, until desired mode is displayed

Time Conversions

One of the most useful functions of the Time Master II is its ability to convert between all time formats with the touch of just two keys: **Conv** and any of the time unit keys: **Hr** **Min** or **Sec**.

Keystroke	Display
-----------	---------

Convert 3 hours, 30 minutes to other formats:

3 Hr 3 0 Min	3:30: HR MIN
---	--------------

Conv Hr	3.5 HR
-----------------------	--------

Conv Min	210. MIN
------------------------	----------

Conv Min	210:00 MIN SEC
------------------------	----------------

Conv Sec	12600. SEC
------------------------	------------

Time Math

Simple Addition

Keystroke	Display
-----------	---------

Add the following time values:

1 1 2 Hr +	112:00:00 HR MIN SEC
3 3 Min 2 2 Sec +	112:33:22 HR MIN SEC
3 Hr 2 1 Min +	115:54:22 HR MIN SEC
1 4 5 Sec +	115:56:47 HR MIN SEC
1 7 Min 1 2 Sec +	116:13:59 HR MIN SEC
3 3 . 7 5 Min	33:75 MIN
=	116:47:44 HR MIN SEC

Athletics – Split Times Required

A marathon runner wants to run a 26.2 mile marathon in 3 hrs 15 min. How fast should he run each mile?

Keystroke	Display
-----------	---------

Enter total time:

3 Hr 1 5 Min	3:15: HR MIN
--------------	--------------

Divide by miles:

÷ 2 6 . 2 =	0:07:26.56 HR MIN SEC
-------------	-----------------------

Athletics– Split Times Projected

In the 800-meter freestyle, a swimmer has just completed 200 Meters (or 25% of the race) in 2 minutes 11.35 seconds. If his pace holds up, what will his final time be?

(con't)

(con't)

Keystroke

Display

Enter time:

2 **Min** **1** **1** **•** **3** **5** **Sec**

2:11.35 MIN SEC

Divide by % completed:

÷ **2** **5** **%**

8:45.40 MIN SEC

Scheduling – Time/Motion

A data entry clerk can process 17 forms in ten minutes. How long will it take to process 1,250 forms?

Keystroke

Display

Enter Time

1 **0** **Min**

10: MIN SEC

Divide by number of forms:

÷ **1** **7** **=**

0:35.29 MIN SEC

Multiply by 1250:

× **1** **2** **5** **0** **=**

735:17.65 MIN SEC

Convert to H:M:S: format:

Conv **Hr**

12:15:17.65 HR MIN SEC

Production – Spacing

A radio advertiser wants to air 15 evenly spaced spots during the morning hours of 6 AM – 10 AM. Find the number of minutes between spots, and the times for the first few spots.

Keystroke

Display

Enter end time:

1 0 AM

10:00:00 AM

Subtract start time:

— 6 AM =

4:00:00 HR MIN SEC

Divide by number of spots:

÷ 1 5 =

0:16:00 HR MIN SEC

Store result into memory:

Stor 1

^{M-1} 0:16:00 HR MIN SEC

Enter start time of 1st spot:

6 AM

6:00:00 AM

Find start time of 2nd spot:

+ Rcl 1 =

6:16:00 AM

Find start time of 3rd spot:

=

6:32:00 AM

=

6:48:00 AM

Continue pressing **=** to solve for the remaining spot start times.

Production – Fixed Lengths

You have a 22 minute demonstration video which is set to automatically repeat. If the rewinding takes another 90 seconds, how many times will the tape replay in eight hours?

Keystroke

Display

Enter Time length:

2 2 Min

22: MIN

Add rewind time length:

+ 9 0 Sec =

23:30 MIN SEC

Store result into Memory:

Stor 1

^{M-1} 23:30 MIN SEC

Enter total hours:

8 Hr

8: HR

Divide by value stored in Memory:

÷ Rcl 1 =

20.425532

Beginning, End and Duration

The **Beg**, **End** and **Dur** keys are used to calculate starting and ending times as well as duration of time. Given two values, the third can be easily found. You may enter a whole number, a point in time or a period of time into the **Beg** and **End** keys. Only periods of time can be entered into **Dur**. AM/PM entries for duration cause an error.

Scheduling – Multiple Steps

A delivery truck travels 132 miles from Los Angeles to Palm Springs. In his log, the driver records the following entries:

Departure (1) 9:22 AM

Stop (1) 10:03 AM

Departure (2) 11:17 AM

Stop (2) 1:15 PM

Find the total time for this drive:

Keystroke

Display

Enter Departure (1):

9 **:** **2** **2** **AM** **Beg**

BEG 9:22:00 AM

Enter Stop (1):

1 **0** **:** **0** **3** **AM** **End**

END 10:03:00 AM

Find Duration:

Dur

DUR 0:41:00 HR MIN SEC

Store result into M+:

Stor **0**

M+ 0:41:00 HR MIN SEC **M**

Enter Departure (2):

1 **1** **:** **1** **7** **AM** **Beg**

BEG 11:17:00 AM **M**

Enter Stop (2):

1 **:** **1** **5** **PM** **End**

END 1:15:00 PM **M**

Find Duration:

Dur

DUR 1:58:00 HR:MIN:SEC **M**

Store result into memory:

Stor **0**

M+ 1:58:00 HR MIN SEC **M**

Display and clear M+:

Rcl **Rcl**

2:39:00 HR MIN SEC

Duration - Using +Days Function

A fireman begins his shift at 5pm

Monday and ends at 9:00 am

Wednesday. Find the total hours he worked.

Keystroke

Display

Enter shift start time:

5 **PM** **Beg**

BEG 5:00:00 PM

Enter shift and time:

9 **AM**

9:00:00 AM

Enter number of days in shift:

Conv **1** **End**

END +1 DAY 9:00:00 AM

Find total hours:

Dur

DUR 40:00:00 HR MIN SEC

Using the Timer

The *Time Master™ II* includes a full function stopwatch / timer with buzzer and split / lap functions.

The timer can count up from zero or count down from an entered time. The display counts in whole seconds, one decimal place, or two decimal places by setting the timer preference (using the **Prefs** key).

Press the **Off** key while the timer is running and the timer will be displayed. The calculator will beep to let you know the timer is still active. The second press of the **Off** key will turn the calculator off.

Keystroke	Display
-----------	---------

Access timer and count up from zero:

Timer	TMR 0:00:00.0 HR MIN SEC
--------------	--------------------------

Timer	GO 0:00:02.4 HR MIN SEC
--------------	-------------------------

Stop and clear the timer:

Timer	STOP 0:00:07.1 HR MIN SEC
--------------	---------------------------

On/C	TMR 0:00:00.0 HR MIN SEC
-------------	--------------------------

Enter time and start countdown:

2 0 0 Timer	GO 0:02:00.0 HR MIN SEC
--------------------	-------------------------

Stop countdown and exit the timer:

Timer	STOP 0:01:55.0 HR MIN SEC
--------------	---------------------------

On/C On/C	0.
------------------	----

While the timer is counting, you will see the clock symbol flashing on the bottom left of the display.

Storing Time Values

Keystroke	Display
-----------	---------

Access and start timer:

Timer	TMR 0:00:00.0 HR MIN SEC
--------------	--------------------------

Timer	GO 0:00:01.6 HR MIN SEC
--------------	-------------------------

Freeze timer display:

S/Lap	SPLT 0:00:05.1 HR MIN SEC
--------------	---------------------------

Stor 1	M-1 0:00:05.1 HR MIN SEC
----------------------	--------------------------

Clear display and recall value in Memory:

On/C	0.
-------------	----

Rcl 1	M-1 0:00:05.1 HR MIN SEC
---------------------	--------------------------

Exit timer and clear display:

Timer Timer On/C On/C	0.
---	----

The example below uses the value stored in the previous example. If you have not already done that example, go back and complete it before performing the next example.

Keystroke	Display
-----------	---------

Recall timer value and add 10 minutes:

Rcl 1	M-1 0:00:05.1 HR MIN SEC
---------------------	--------------------------

+ 10 Min =	0:10:05.1 HR MIN SEC
--	----------------------

Stor 1	M-1 0:10:05.1 HR MIN SEC
----------------------	--------------------------

On/C	0.
-------------	----

Recall timer value and subtract 4 minutes:

Rcl 1	M-1 0:10:05.1 HR MIN SEC
---------------------	--------------------------

- 4 Min =	0:06:05.1 HR MIN SEC
---------------------------------------	----------------------

Stor 1	M-1 0:06:05.1 HR MIN SEC
----------------------	--------------------------

On/C	0.
-------------	----

Recall timer value and multiply by 5:

Rcl 1	M-1 0:06:05.1 HR MIN SEC
---------------------	--------------------------

x 5 =	0:30:25.50 HR MIN SEC
----------------------------	-----------------------

Stor 1	M-1 0:30:25.50 HR MIN SEC
----------------------	---------------------------

On/C	0.
-------------	----

Recall timer value and divide by 3:

Rcl 1	M-1 0:30:25.50 HR MIN SEC
---------------------	---------------------------

÷ 3 Min =	10:14:16.67
---------------------------------------	-------------

Clear Memory and display:

Conv + On/C	0.
----------------------------------	----

Split / Lap Function

You can select whether the **S/Lap** key acts like a split function or a lap function through the preference settings.

Set to the SPLIT function (default).

When you press the **S/Lap** key, the calculator will pause the timer display, and show the amount of time elapsed from the start of the timer to the time the key was pressed. The second press returns to the counter, the third press stops it again, etc.

Set to the LAP function and press the **S/Lap** key. Display will show the amount of time elapsed from the start of the timer, to the press of the **S/Lap** key. Further presses of the **S/Lap** key will return the counter or show the time between presses.

PAPERLESS TAPE FEATURE

The “Paperless Tape” feature allows the user to display the last twenty entries. While in the Paperless Tape mode, the display will look similar to this:



↑

↑

↑

A

B

C

- A = Sequential number of entry
(01–1st entry, 02–2nd entry, etc.)
- B = Math operator (+, −, x, ÷, %)
- C = Entered or calculated value

How to use the tape

Keystroke	Display
-----------	---------

Clear calculator and enter a string of numbers:

On/C On/C	0.
4 Hr +	4:00:00 HR MIN SEC
5 Hr +	9:00:00 HR MIN SEC
6 Hr +	15:00:00 HR MIN SEC
7 Hr =	22:00:00 HR MIN SEC

Access the tape feature:

Rcl =	^{TTL} = 22:00:00 HR MIN SEC
---------------------	--------------------------------------

Scroll from first value to total using the **+** key:

+	⁰¹ 4:00:00 HR MIN SEC
+	⁰²⁺ 5:00:00 HR MIN SEC
+	⁰³⁺ 6:00:00 HR MIN SEC
+	⁰⁴⁺ 7:00:00 HR MIN SEC
+	^{TTL=} 22:00:00 HR MIN SEC

Scroll back to the last two values using the **-** key:

-	⁰⁴⁺ 7:00:00 HR MIN SEC
-	⁰³⁺ 6:00:00 HR MIN SEC

Exit the Paperless tape and add to the string:

=	^{TTL=} 22:00:00 HR MIN SEC
+ 2 Hr =	24:00:00 HR MIN SEC

*Note: To exit the tape mode, you can press any key besides **Off**, **+** or **-**.*

When you press a key to exit the tape, the calculator will display the last value entered into the tape. If the value was **=** the display will show the total (**TTL =**). If there were more than one **=** during the string, the last **=** pressed will show as the total, and all others will be designated as subtotals (**SUB =**). The next press will begin a new tape function.

Clearing the Paperless Tape:

The Paperless Tape is cleared upon:

- 1) a double press of **On/C**;
- 2) a Clear All (**Conv** **X**);
- 3) the start of a new string of equations after exiting the tape function (starting with a number, not an operator); or
- 4) turning the unit off.

Rate Function

The rate function is used to multiply a numerical or time value by a per-unit rate. This is primarily used for finding costs based on a per-unit time price structure. You may clear the value by performing a “Clear All” (**Conv** **X**) or replace it with another value.

Entering a unitless value, then pressing **Stor** **Rate** will permanently store that value as the rate. When entering a math string, **Rate** pressed after a unitless value will override the previous rate. For example, if you enter **2** **•** **5** **Hr** **X** **1** **0** **Rate** *TimeMaster II* uses 10 as the rate instead of the stored value.

Note: *Trying to enter a time value into the rate key causes an error.*

Billing

A consultant who bills at a rate of \$125 per hour reports the following hours:

- 2 Hrs 20 Min
- 1 Hr 15 Min
- 35 Min
- 4 Hr 35 Min

Find the total hours and total bill, using a temporary rate value.

Keystroke

Display

Enter 1st value:

2 **Hr** **2** **0** **Min** **+**

2:20:00 HR MIN SEC

Add 2nd value:

3 **5** **Min** **+**

2:55:00 HR MIN SEC

Add 3rd value:

1 **Hr** **1** **5** **Min** **+**

4:10:00 HR MIN SEC

Add 4th value:

4 **Hr** **3** **5** **Min** **=**

8:45:00 HR MIN SEC

Multiply by rate:

X **1** **2** **5** **Rate**

RATE 1093.75

Scheduling – Assembly

An assembly line can produce 4.7 widgets per minute. How many can it produce in a week if it runs three 40-hour shifts per week?

Keystroke

Display

Find the hourly rate:

4 **•** **7** **X** **6** **0** **=**

282.

Store the hourly rate:

Stor **Rate**

RATE 282.00

Find the total hours:

4 **0** **Hr** **X** **3** **=**

120:00:00 HR MIN SEC

X **Rate**

RATE 33840.0

Scheduling – Payroll

Your part-time office assistant's time card reads as follows:

<u>Day</u>	<u>In</u>	<u>Out</u>
Monday	3:30 PM	5:30 PM
Tuesday	3:15 PM	7:00 PM
Wednesday	3:30 PM	4:45 PM

If he earns \$6.50 per hour, find the total hours worked and total gross pay:

Keystroke

Display

Enter Monday in and out times:

3 **:** **3** **0** **PM** **Beg** BEG 3:30:00 PM
5 **:** **3** **0** **PM** **End** END 5:30:00 PM

Find the duration:

Dur DUR 2:00:00 HR MIN SEC

Store into M+:

Stor **0** M+ 2:00:00 HR MIN SEC

Enter Tuesday in and out times:

3 **:** **1** **5** **PM** **Beg** BEG 3:15:00 PM
7 **PM** **End** END 7:00:00 PM

Find the duration:

Dur DUR 3:45:00 HR MIN SEC

Store into M+:

Stor **0** M+ 3:45:00 HR MIN SEC

Enter Wednesday in and out times:

3 **:** **3** **0** **PM** **Beg** BEG 3:30:00
PM **4** **:** **4** **5** **PM** **End** END 4:45:00 PM

Find the duration:

Dur DUR 1:15:00 HR MIN SEC

Store into M+:

Stor **0** M+ 1:15:00 HR MIN SEC

Recall total hours from M+:

Rcl **0** M+ 7:00:00 HR MIN SEC

Multiply by the rate:

X **6** **.** **5** **0** **Rate** RATE 45.50

APPENDIX

ADDITIONAL INFORMATION

Accuracy/Display – Your calculator has an eight digit display. In a standard calculation, each calculation is carried out internally to ten digits and is rounded to an eight digit value. A 5/4 rounding technique is used to add one to the least significant digit in the display if the next non-displayed digit is five or more. If this digit is less than five, no rounding occurs.

Errors – When you make an incorrect entry, or the answer is beyond the range of the calculator, it will display the word “Error.” To clear an error condition you must hit the **On/C** button. At this point you must determine what caused the error and rekey the problem. An error will also occur if you enter a mathematical impossibility such as division by zero.

Clear All – Your calculator is equipped with a special two-key sequence, **Conv** **X** to clear all Memory registers to their default values.

Battery Information – Your calculator is powered by a single 3-Volt Lithium CR 2032 battery. This should last upwards of 800 hours of actual use (one year plus for most people). Should the display become very dim or erratic, replace the battery.

WARNING

Because the batteries contain hazardous chemicals, please use caution when disposing of old batteries. Keep them away from animals and young children.

Automatic Shutdown – The calculator is designed to shut itself off after eight to ten minutes of inactivity. Values shown on the display will be cleared.

Note: If the timer/stopwatch is running, the automatic shutdown will occur after eight hours.

Warranty, Repair and Return Information

Return Guidelines

1. Please read the **Warranty** in this User's Guide to determine if your Calculated Industries product remains under warranty **before** calling or returning any device for evaluation or repairs.
2. If your calculator won't turn on, check the batteries as outlined in the User's Guide.
3. If you need more assistance, please go to our website listed below.
4. If you believe you need to return your product, please call a Calculated Industries representative between the hours of 8:00am to 4:00pm Pacific Time for additional information and a Return Merchandise Authorization (RMA).

Call Toll Free: 1-800-854-8075

Outside USA: 1-775-885-4900

www.calculated.com/warranty

Warranty

Warranty Repair Service – U.S.A.

Calculated Industries ("CI") warrants this product against defects in materials and workmanship for a period of **one (1) year from the date of original consumer purchase in the U.S.** If a defect exists during the warranty period, CI at its option will either repair (using new or remanufactured parts) or replace (with a new or remanufactured calculator) the product at no charge.

THE WARRANTY WILL NOT APPLY TO THE PRODUCT IF IT HAS BEEN DAMAGED BY MIS-USE, ALTERATION, ACCIDENT, IMPROPER HANDLING OR OPERATION, OR IF UNAUTHORIZED REPAIRS ARE ATTEMPTED OR MADE. SOME EXAMPLES OF DAMAGES NOT COVERED BY WARRANTY INCLUDE, BUT ARE NOT LIMITED TO, BATTERY LEAKAGE, BENDING, A BLACK "INK SPOT" OR VISIBLE CRACKING OF THE LCD, WHICH ARE PRESUMED TO BE DAMAGES RESULTING FROM MISUSE OR ABUSE.

To obtain warranty service in the U.S., please go to the website.

A repaired or replacement product assumes the remaining warranty of the original product or 90 days, whichever is longer.

Non-Warranty Repair Service – U.S.A.

Non-warranty repair covers service beyond the warranty period, or service requested due to damage resulting from misuse or abuse.

Contact Calculated Industries at the number listed above to obtain current product repair information and charges. Repairs are guaranteed for 90 days.

Repair Service – Outside U.S.A.

To obtain warranty or non-warranty repair service for goods purchased outside the U.S., contact the dealer through which you initially purchased the product. If you cannot reasonably have the product repaired in your area, you may contact CI to obtain current product repair information and charges, including freight and duties.

Disclaimer

CI MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT'S QUALITY, PERFORMANCE, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS PRODUCT, INCLUDING BUT NOT LIMITED TO, KEYSTROKE PROCEDURES, MATHEMATICAL ACCURACY AND PREPROGRAMMED MATERIAL, IS SOLD "AS IS," AND YOU THE PURCHASER ASSUME THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE. IN NO EVENT WILL CI BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THE PRODUCT OR ITS DOCUMENTATION.

The warranty, disclaimer, and remedies set forth above are exclusive and replace all others, oral or written, expressed or implied. No CI dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights, and you may also have other rights, which vary from state to state.

FCC Class B

This equipment has been certified to comply with the limits for a Class B calculating device, pursuant to Subpart J of Part 15 of FCC rules.

LOOKING FOR NEW IDEAS

Calculated Industries, a leading manufacturer of special-function calculators and digital measuring instruments, is always looking for new product ideas in these areas.

If you have an idea, or a suggestion for improving this product or User's Guide, please submit your comments online at www.calculated.com under "Contact Us," "Product Idea Submittal Agreement." Thank you.

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